



NORTH DAKOTA DEPARTMENT OF HEALTH
Environmental Health Section

Location:

1200 Missouri Avenue
Bismarck, ND 58504-5264

Fax #:

701-328-5200

Mailing Address:

P.O. Box 5520
Bismarck, ND 58506-5520

TO: Megan Williams EPA - Region 8

Fax #: (303) 312-6064

Phone: _____

FROM: Tom Bachman

Fax #: (701) 328-5200

Phone: (701) 328-5188

DATE: 7/23/01

Number of pages following: 2

Remarks: Megan: Here are the letters to:

- 1) Dick Long
- 2) Baseline Sources (same for all sources)
- 3) Increment Consuming Sources - an F.Y.I. letter.

Environmental Health
Section Chief's Office
701-328-5150

Air
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701-328-5188

Municipal
Facilities
701-328-5211

Waste
Management
701-328-5188

Water
Quality
701-328-5210



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July 11, 2001

Richard R. Long, Director
Air and Radiation Program
U.S. EPA, Region VIII
One Denver Place
999 18th Street, Suite 300
Denver, CO 80202-2466

Dear Mr. Long:

Attached is a letter sent to the major air pollution sources in North Dakota asking them for information on what they consider to be their baseline air emissions. The Department is undertaking this effort to determine whether there is any PSD increment available in the Class 1 areas in our State. After we receive the information from the companies, the Department will make a preliminary determination and provide opportunity for public input to the Department's decision.

We wanted to alert you to this process, and we will keep you informed as we progress. You may contact me at 701.328.5188 if you have any questions or wish to provide input on these issues.

Sincerely,

Jeffrey L. Burgess, Director
Division of Air Quality

JLB:cc
Attach.

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Website: www.health.state.nd.us/ndhd/enviro

FIELDNAMES(address;salutation)ENDRECORD

Richard R. Long, Director
Air and Radiation Program
U.S. EPA, Region VIII
One Denver Place
999 18th Street, Suite 300
Denver, CO 80202-2466ENDFIELD
Mr. LongENDFIELD
ENDRECORD

Donald Nelson, Chair
Dakota Resource Council
113 West First Street
P.O. Box 1095
Dickinson, ND 58602-1095ENDFIELD
Mr. NelsonENDFIELD
ENDRECORD

Gerald Groenwald
University of North Dakota
Energy & Environmental Research Center
P.O. Box 9018
Grand Forks, ND 58202-9018ENDFIELD
Mr. GroenwaldENDFIELD
ENDRECORD

Ms. Susan Kahler
Executive Officer
American Lung Association of North Dakota
212 North Second Street
Bismarck, ND 58501ENDFIELD
Ms. KahlerENDFIELD
ENDRECORD

John W. Dwyer, President
Lignite Energy Council
P.O. Box 2277
Bismarck, ND 58502-2277ENDFIELD
Mr. DwyerENDFIELD
ENDRECORD

Ron Ness, Executive Director
North Dakota Petroleum Council
120 North Third Street
Bismarck, ND 58501ENDFIELD
Mr. NessENDFIELD
ENDRECORD



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Bismarck, ND 58506-5520

July 3, 2001

Mr. Ron Harper
General Manager
Basin Electric Cooperative
1717 E. Interstate Avenue
Bismarck, ND 58501

Dear Mr. Harper:

The North Dakota Department of Health (Department) has administered the federal requirements of Prevention of Significant Deterioration (PSD) of the Clean Air Act (CAA) in the state since 1977 when the Environmental Protection Agency (EPA) granted the Department PSD primacy. The EPA and some affected PSD sources have raised issues relating to PSD that may need resolution. The Department needs to reassess whether PSD Class I area increments for SO₂ are consumed. As part of that process, we need to determine which major and minor sources, as well as the emissions from those sources, are baseline or are increment consuming or both.

Brief Background

The PSD provisions of the CAA designated certain areas as Class I areas. The in-state Class I areas are the Theodore Roosevelt National Park and the wilderness portion of the Lostwood National Wildlife Refuge. The PSD provisions established air quality deterioration limits, called increments, in these areas. The increments are increases in air quality concentrations above those existing on dates when PSD provisions were triggered. Currently, the air quality in the Class I areas is better than the state and federal CAA ambient air quality standards.

For all PSD permitting actions, the law requires using air quality models to assess air quality in Class I areas due to source emissions. In 1978, the Department determined that the federally allowed PSD increments for sulfur dioxide could be exceeded due to the proposed Antelope Valley station units 1 and 2 short-term sulfur dioxide emissions. However, this source was permitted at short-term emission rates that would not cause ambient sulfur dioxide air quality degradation to exceed the PSD Class I area increments for sulfur dioxide.

Later, additional new sources of sulfur dioxide and source modifications were proposed. The additional emissions from these sources also contributed to sulfur dioxide concentrations that exceeded the increments. On four occasions from 1982 through 1992, the federal Department of Interior - as the federal land manager for the state's PSD Class I areas - determined that air quality-related values would not be adversely affected due to the additional sulfur dioxide emissions emitted by the proposed new sources and source modifications. Based on this determination, the Department permitted these additional sources.

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In February 2000, EPA Region 8 notified the Department that the modeled ambient sulfur dioxide concentrations exceeding the PSD Class I increments were violations of the CAA. In January 2001, EPA notified the Department that it intended to issue a State Implementation Plan (SIP) call; the SIP call would have required revision of the SIP and implementation of corrective measures. After consultation with EPA, the Department responded by offering a schedule to reevaluate whether the increment is consumed. EPA concurred with the Department's proposal to complete the reassessment by February 2002. Copies of a Department letter dated March 13, 2001, and an EPA letter dated March 28, 2001, are attached.

In 1999, the Department sent a letter to several companies that operate major sources concerning determination of baseline emission rates for sulfur dioxide. In that letter, the Department provided calculations of the baseline sulfur dioxide emission rates for each company's facilities in North Dakota based on U.S. Environmental Protection Agency guidance and information in Annual Emissions Inventory Reports. After receiving some objections to the calculations, the Department did not complete its determinations on baseline emission rates. We must resolve that issue now so we can proceed with our increment assessment analysis. This letter gives you the opportunity to provide your position concerning this issue and any supporting documentation.

With regard to the use of historical emissions to establish the baseline emission rates, please address the following:

1. We have completed calculations of historical emission rates for some facilities. For those facilities a copy of the results are attached. The calculations of historical emission rates were based on AP-42 emission factors and information in the Annual Emission Inventory Reports from 1974-1977. If you can document more reliable data than is provided in the Annual Emission Inventory Reports or a more accurate methodology for calculating emissions, please provide the best calculations and supporting documentation you have to determine emissions. This would include information on the methodology used to generate the data on fuel quality, fuel feed rates, processing rates, etc. Specifically, provide information on sampling techniques, the chemical analysis methods, and the fuel feed or processing rate measurement methodology.
2. Please provide your input on the most reliable method for calculating historical 3-hour and 24-hour emission rates from the information in the Annual Emission Inventory Reports (i.e., using maximum 1-hr coal feed rates, processing rates, fuel quality data, etc.).
3. Increment consumption will generally be based on changes in actual emissions reflected by normal source operation for a period of two years. EPA rules and guidance allow the potential to emit to be used if little or no operating data are available, as in the case of a permitted emission unit constructed before the major source baseline date but not yet in operation at the time of the minor source baseline date. The Department will be using actual emission rates based on the two-year period preceding the minor source baseline

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date (December 19, 1977) unless adequate documentation is provided to show that emissions during that two-year period are anomalous.

4. If applicable, what SO₂ emissions from minor sources associated with your company (i.e., oil and gas wells, etc.) are increment consuming, and what SO₂ emissions from those minor sources should be included in baseline?

With regard to possible use of allowable emissions as baseline emission rates, please describe law, rule, case law, federal guidance or any other information to support such a position.

Please provide the emission rates (lb/hr) which you believe are the baseline emission rates for your unit(s) on a 3-hour, 24-hour and annual basis and any supporting documentation. We ask that you submit your response to this letter within 45 days of receipt.

After receiving the requested information, the Department will develop a preliminary decision. That decision will be shared with you and be considered through a public process including a possible hearing later this fall. If you have any questions, please feel free to contact us.

Sincerely,



Jeffrey L. Burgess, Director
Division of Air Quality

JLB:cc
Attach.



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Mr. Ron Harper
General Manager
Dakota Gasification Company
1600 E. Interstate Avenue
Bismarck, ND 58501

Dear Mr. Harper:

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For all PSD permitting actions, the law requires using air quality models to assess air quality in Class I areas due to source emissions. In 1978, the Department determined that the federally allowed PSD increments for sulfur dioxide could be exceeded due to the proposed Antelope Valley station units 1 and 2 short-term sulfur dioxide emissions. However, this source was permitted at short-term emission rates that would not cause ambient sulfur dioxide air quality degradation to exceed the PSD Class I area increments for sulfur dioxide.

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The Department has considered all of your facility's emissions as increment consuming. If you believe we are in error in this assumption, this letter gives you the opportunity to provide your position concerning this issue and any supporting documentation within 45 days of receipt of this letter.

After receiving the requested information, the Department will develop a preliminary decision. That decision will be shared with you and be considered through a public process including a possible hearing later this fall. If you have any questions, please feel free to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey L. Burgess".

Jeffrey L. Burgess, Director
Division of Air Quality

JLB:cc
Attach.